

7 a first mixer device configured to receive said LO signal and said first RF signal included  
8 within a first band and responsively to output a first Intermediate Frequency (IF) signal;

C1  
Cm  
9 a second mixer device configured to receive said LO signal and said second RF signal  
10 included within a second band and responsively to output a second IF signal;

11 a second two way switching device responsive to said base band controller for switching  
12 between said first and second IF signals; and

13 wherein said local oscillator is configured to operate within a third band located between  
14 said first and second bands and is responsive to said base band controller.

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1 7.8. (Amended) A system comprising:

C2  
Cm  
2 a transmitter circuit; and

3 a dual band radio receiver coupled to said transmitter, said dual band radio receiver  
4 including

5 a local oscillator configured to generate an LO signal,

6 a first two way switching device responsive to a base band controller for  
7 switching between a first [Radio Frequency (RF) signal and a second RF signal, [received from]  
8 the first two way switching device coupled to a first front end receiver and [a second RF signal  
9 received from] a second front end receiver,

10 a first mixer device configured to receive said LO signal and [a] said first RF  
11 signal included within a first band and responsively to output a first IF signal,

12 a second mixer device configured to receive said LO signal and [a] said second  
13 RF signal included within a second band and responsively to output a second IF signal,

14 a second two way switching device responsive to said base band controller for  
15 switching between said first and second IF signals, and

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wherein said local oscillator is configured to operate within a third band  
positioned between said first and second bands and responsive to said base band controller.

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21. (Amended) A method for providing a dual band radio receiver [, the method]  
2 comprising [the steps]:  
3 providing first and second front end receivers ;  
4 providing first and second mixers, wherein the first mixer is coupled to the first front end  
5 receiver and the second mixer is coupled to the second front end receiver;  
6 providing a base band controller;  
7 providing a circuit configured to determine whether an RF signal [input thereto from the  
8 first or second front end receivers] belongs to one of a first and second bands, said circuit  
9 coupling said RF signal to one of said first and second [mixers] front end receivers if said circuit  
10 determines that the RF signal belongs to one of a first and second bands respectively and is  
11 responsive to said base band controller; and  
12 coupling a local oscillator to said first and second mixers, said local oscillator configured  
13 to generate signals within a third band that is positioned approximately mid-way between said  
14 first and second bands and wherein said local oscillator is responsive to said base band  
15 controller.